

AMENDMENT UNDER 37 C.F.R. § 1.114(c)
U.S. Application No.: 10/554,707

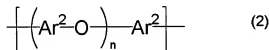
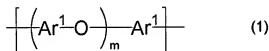
Attorney Docket No.: Q90872

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (previously presented): An aromatic-polyether-type ion-conductive ultrahigh molecular weight polymer having an ion exchange capacity of 0.1 meq/g or higher and a structure comprising an aromatic-polyether-type ultrahigh molecular weight polymer in which an acid group is introduced, said aromatic-polyether-type ultrahigh molecular weight polymer having at least one structural unit selected from those represented by the following formulas (1) and (2) and the sum of the number a of the structural unit of the formula (1) and the number b of the structural unit of the formula (2) being 2 or larger:



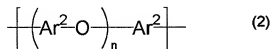
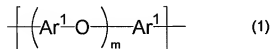
wherein Ar¹ and Ar² independently represent an aromatic divalent group, m and n represent repeating numbers, m and n independently represent a numeral of 10 or more, and a plurality of Ar¹, a plurality of Ar², a plurality of m and a plurality of n may be different respectively; and wherein the aromatic-polyether-type ultrahigh molecular weight polymer has a number-average molecular weight in terms of polystyrene of 100,000 or more.

2. (previously presented): The aromatic-polyether-type ion-conductive ultrahigh molecular weight polymer according to claim 1, wherein the acid group is sulfonic acid group.

3. (original): A process for producing the aromatic-polyether-type ion-conductive ultrahigh molecular weight polymer of claim 1 which comprises introducing an acid group into an aromatic-polyether-type ultrahigh molecular weight polymer having at least one structural unit selected from those represented by the formulas (1) and (2) described in claim 1, the sum of the number a of the structural unit of the formula (1) and the number b of the structural unit of the formula (2) being 2 or larger.

4. (original): A process according to claim 3, wherein the acid group is sulfonic acid group.

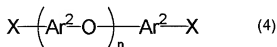
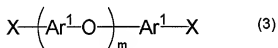
5. (previously presented): An aromatic-polyether-type ultrahigh molecular weight polymer having at least one structural unit selected from those represented by the following formulas (1) and (2), the sum of the number a of the structural unit of the formula (1) and the number b of the structural unit of the formula (2) being 2 or larger:



wherein Ar^1 and Ar^2 independently represent an aromatic divalent group, m and n represent repeating numbers, m and n independently represent a numeral of 10 or more, and a plurality of Ar^1 , a plurality of Ar^2 , a plurality of m and a plurality of n may be different respectively; and

wherein the aromatic-polyether-type ultrahigh molecular weight polymer has a number-average molecular weight in terms of polystyrene of 100,000 or more.

6. (previously presented): A process for producing an aromatic-polyether-type ultrahigh molecular weight polymer of claim 5 which comprises polymerizing by a condensation reaction at least one polymer selected from the polymers represented by the following formulas (3) and (4) in the presence of a zerovalent transition metal complex:



wherein Ar^1 , Ar^2 , m and n are the same as defined in claim 5, X represents a group which is eliminated at the condensation reaction, and a plurality of X may be different.

7. (original): A process for producing an aromatic-polyether-type ultrahigh molecular weight polymer according to claim 6, wherein X is chlorine, bromine, iodine, p-toluenesulfonyloxy group, methanesulfonyloxy group or trifluoromethanesulfonyloxy group.

8. (previously presented): A polymer electrolyte comprising the aromatic-polyether-type ion-conductive ultrahigh molecular weight polymer of claim 1.

9. (original): A polymer electrolyte membrane comprising the polymer electrolyte of claim 8.

10. (original): A catalyst composition comprising the polymer electrolyte of claim 8.

11. (currently amended): A fuel cell comprising ~~the a~~ polymer electrolyte membrane comprising the polymer electrolyte of claim 8 of claim 9 and/or a the catalyst composition comprising the polymer electrolyte of claim 8 of claim 10.